



Brookhaven National Laboratory

Overview

FY 2002 Mid Year Review

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BNL FY 2002 Mid Year Review

Today's Agenda

- BNL Summary and Overview
 - Gail
- HFBR Update
 - Lloyd
- Peconic River Update
 - Lloyd
- BGRR
 - Mark



BNL FY02 Mid Year Review

EM Uncosted Summary

| Category | FY 01 *Carryover | FY02 Obligations | Total Funds Available | FY02 Costs (thru 3/31) | Uncosted Obligations | FY02 Uncosted Obligations | | |
|-----------------------|---------------------|---------------------|--------------------------|---------------------------|-------------------------|---------------------------|---------------------------|----------|
| | | | | | | Contractor Encumb. | Approved Work Scope | Unencumb |
| Program Management | 602 | 1,900 | 2,502 | 1,104 | 1,399 | 0 | 0 | 0 |
| BGRR | 1,500 | 6,920 | 8,420 | 6,222 | 2,198 | 0 | 0 | 0 |
| HFBR - SC | 1,251 | 0 | 1,251 | 1,822 | -571 | 0 | 0 | 0 |
| HFBR | 0 | 1,054 | 1,054 | 489 | 565 | 0 | 0 | 0 |
| Boneyard | 3,541 | 0 | 3,541 | 326 | 3,215 | 0 | 0 | 0 |
| Remedial Action | 5,021 | 14,052 | 19,073 | 8,795 | 10,278 | 0 | 0 | 0 |
| RA-SC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ASTD | 287 | 908 | 1,195 | 452 | 743 | 0 | 0 | 0 |
| Total | 12,202 | 24,834 | 37,036 | 19,210 | 17,827 | 0 | 0 | 0 |

* Includes \$10M supplemental received in September 2001.



BNL FY02 Mid Year Review

Major Accomplishments

- **Operable Unit I – Rad Soils**

- Excavation of Building 650 Piping and Sump Outfall Underway
- 1,700 of 7,000 Cubic Yards of Chemical Holes Soil Sorted (ASTD)
- Former HWMF D&D Plan drafted

- **Operable Unit V**

- EPA signed Sewage Treatment Plant ROD (January 2002) and draft Work Plan submitted
 - Preparations underway for field work this summer
- Lloyd will discuss progress on the Peconic River



ASTD Project: “Innovative Waste Segregation and Near Real-Time Field Characterization for RCRA Metals in BNL Stockpiled Soil”



Field Laboratory includes ISOCs (Rad); X-ray Fluorescence (metals screening) plus Direct Hg Analyzer and Anodic Stripping Volatametry (ASV) for low range sensitivity for Mercury. (June 2002)

“Powerscreen” Vibratory Screening removes non-conforming items < 0.5 inch. (June 2002)





Building 650 & Sump Outfall Remediation Project



Excavation of contaminated soil is well underway at the Building 650 Sump Outfall Area as required by the Operable Unit I Record of Decision. ORISE Independent Verification is planned for mid-June. (June 2002)



BNL FY02 Mid Year Review

Major Accomplishments

● Groundwater:

- Treated 600 million gallons of groundwater and removed 400 lbs. of VOCs in FY02 for a total of 4 billion gallons and 3,200 lbs to date.
- Continued design and construction of groundwater treatment systems
 - Conducted predesign characterization for 7 treatment systems
 - Completed design for Sr-90 Pilot at Chemical Holes and selected contractor
 - Completed construction of Western South Boundary System & startup testing is underway
- Negotiating off-site access for construction and operation
- Community workshop planned for June 11th for off-site systems



Status for FY02 Mid Year

Active Remediation Complete:

- Tritium Hot Spot
- OU IV

Construction Complete:

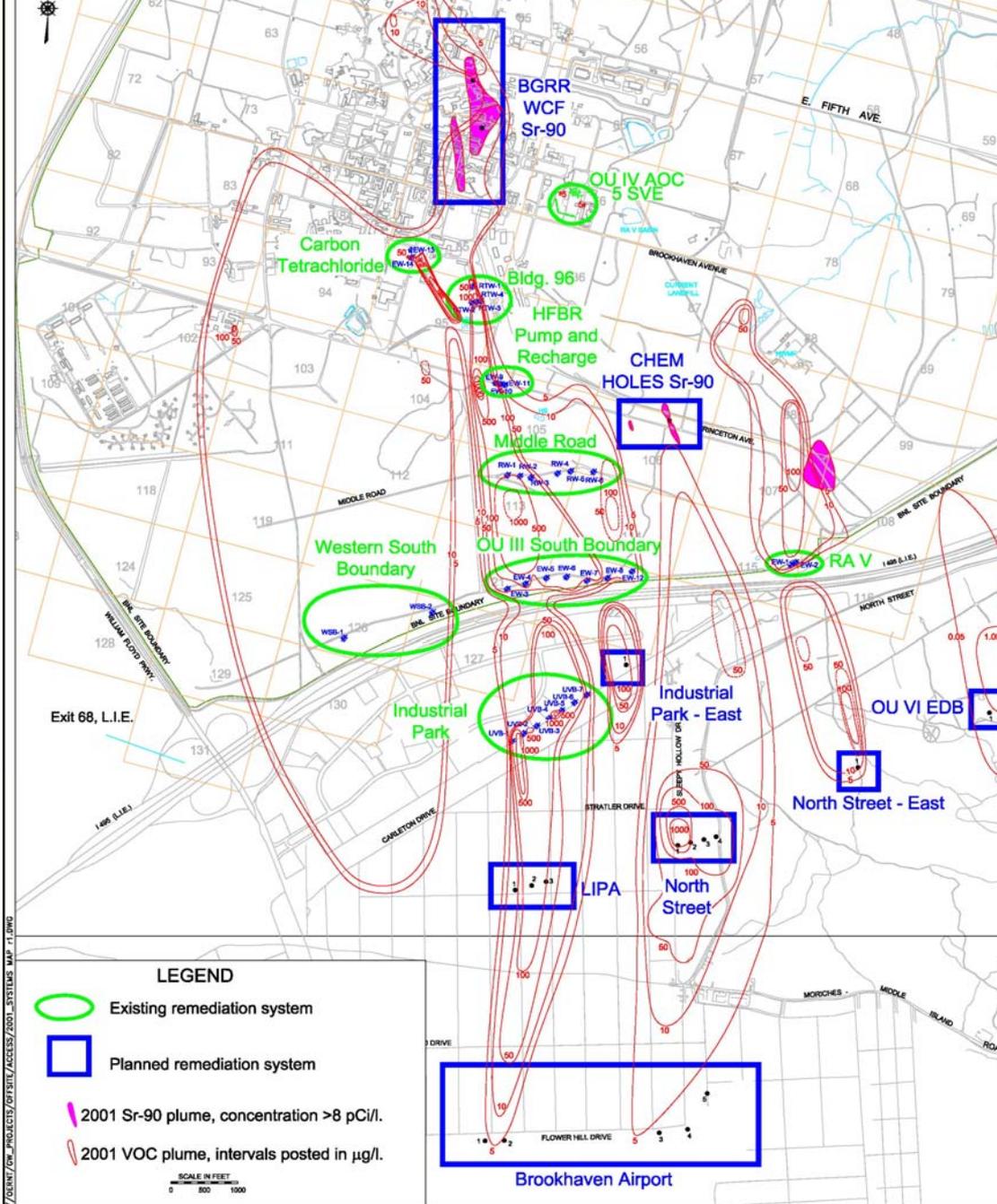
- Middle Road
- Western South Boundary

Construction Started:

- Sr-90 Chem Holes

Design Underway:

- North Street
- LIPA
- Airport





OU III – Western South Boundary



Construction complete March 2002. Startup Testing



OU III – Chemical Holes Strontium-90 Treatment System



Construction underway (April 2002)



BNL FY02 Mid Year Review Status

- Boneyard Waste Project
 - Completion originally scheduled for end of FY01
 - Majority of Waste Removed
 - Punch List Items (heat exchanges, magnets) remain on-site
 - ATG Solvency Issue
 - ATG ceased operations in November 01, Declared Chapter 11 Bankruptcy shortly thereafter
 - Established “recovery” Contract to process BNL Dry Active Waste located at ATG-Richland
 - Unprocessed waste represents a liability
 - ATG processing BNL waste with full-time oversight
 - 848,817 of 1.3 million pounds have been processed
 - Shipping to Envirocare underway; coordinating with Fernald Unit Train to obtain soil rate on debris
 - A lessons learned review of the contracting will be conducted



BNL FY02 Mid Year Review Status

- Boneyard Waste Project (continued)
 - ATG Solvency Issue
 - Other ATG waste includes
 - 31,000 lbs of LLW High Activity Vault Waste
 - 4,700 lbs Cut Fuel Rod Ends (HFBR)
 - 115,000 Mixed Waste (Waste Management)
 - Source Disposition
 - Was part of ATG contract; sources are still at BNL
 - BNL will self-perform this effort in 2003
 - Currently working to transfer Cs-137 to PNNL



BNL FY02 Mid Year Review

Major Accomplishments

- **Brookhaven Graphite Research Reactor**
 - D&D accomplished
 - Completed Above Grade Ducts
 - Below Grade Ducts Characterized
 - Remediated canal, soils, piping, sumps
 - Self Assessment conducted; new approach developed
 - Mark will discuss this further



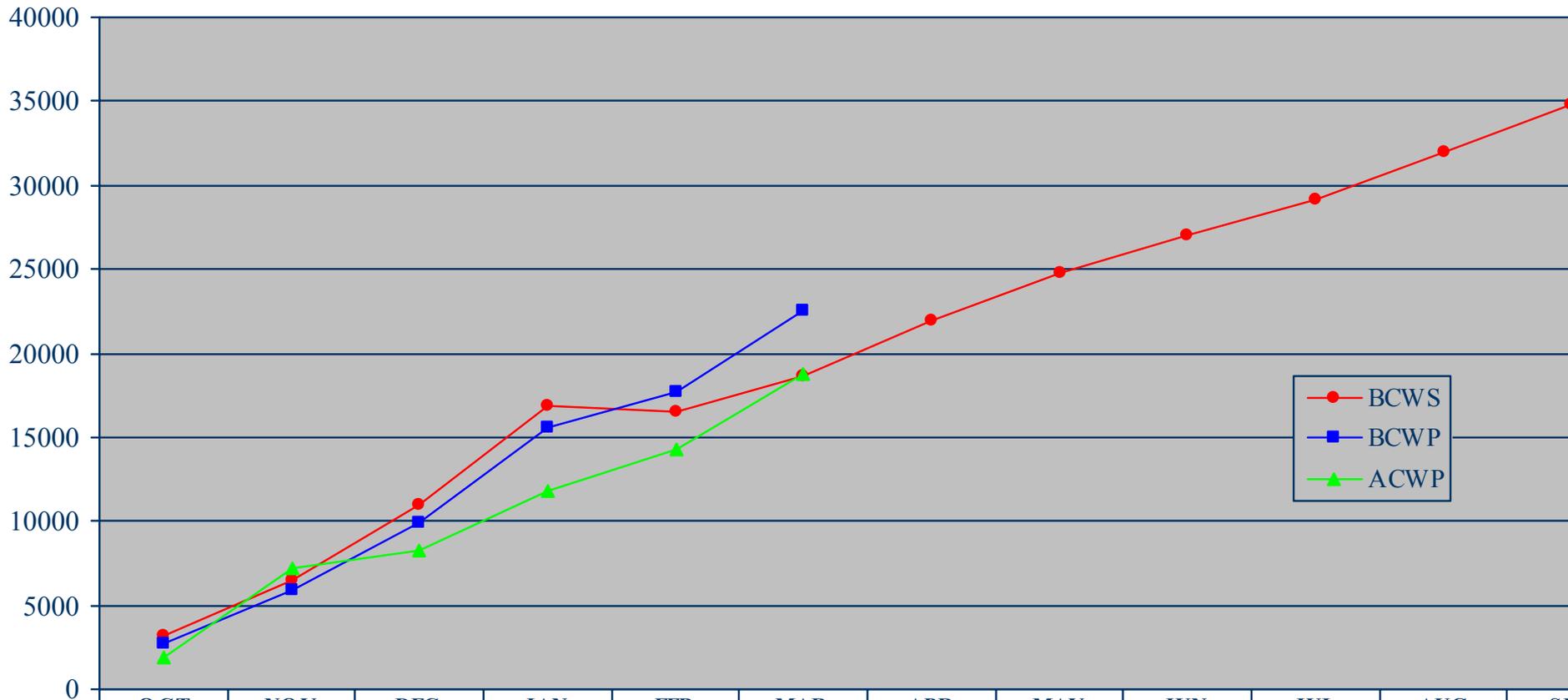
BNL FY02 Mid Year Review Major Accomplishments

- **High Flux Beam Reactor**
 - Surveillance and maintenance underway
 - Planning for acceleration; looking for cash





BNL FY02 Mid Year EM Cost Performance (000s)*



| | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| BCWS | 3145 | 6474 | 10944 | 16890 | 16492 | 18614 | 21923 | 24768 | 27052 | 29133 | 31944 | 34755 |
| BCWP | 2744 | 5919 | 9861 | 15599 | 17725 | 22498 | | | | | | |
| ACWP | 1854 | 7190 | 8304 | 11835 | 14264 | 18759 | | | | | | |



BNL FY02 Mid Year FY Cost Variance Analysis

BCWP \$22,498K ACWP \$18,759K CV \$3,739K/20%

- **Variance Explanation:** Fiscal year-to-date analysis complicated by BCPs processed for work accomplished in FY01 at BGRR/Boneyard (\$1.1M) and Baseline fix and HFBR BCWP (\$2.9M) taken for fuel write off in FY0. Overruns on BGRR associated with Canal and Above Grade Ducts offset by under run on OU III and Sitewide.
- **Impacts:**
- **Corrective Measures:** BCP and reporting process assessed for improvement.



BNL FY02 Mid Year FY Schedule Variance Analysis

BCWP \$22,498K BCWS \$18,416K SV \$3,884K 21 %

- **Variance Explanation:** Fiscal year-to-date analysis complicated by Baseline fix BCP (\$4.5M). BGRR is actually behind baseline schedule but on new approach schedule.
- **Impacts: N/A**
- **Corrective Measures:** BCP process assessed for improvement. Complete BGRR BCP to incorporate self assessment recommendations and new approach.



BNL FY02 Mid Year Review Cost Avoidances/Savings

- Our 3rd ASTD Project is underway
- More Efficient Groundwater Sampling
 - Implementing DQO effort to reduce sampling
 - Conducted as part of overall BNL review required by ESH Critical Outcome in FY 2001 for implementation in FY 2002
 - This effort is expected to save \$350K per year; actual cost savings are being evaluated





BNL FY02 Mid Year Year Cost Avoidances/Savings (cont.)

- **Waste Shipping and Disposal**
 - Continued use of DOE Direct Contracts (e.g. Ohio) for Treatment and Disposal
 - Evaluating direct BNL contract that could save as much as \$1M over the next 3 years
 - Continued Rail Shipment
 - Combined debris and soil shipments to Envirocare saved \$242K in FY01; \$62K to date in FY02
 - Continued to excess HFBR equipment



Contract Performance and Evaluation

- EM Has its own Critical Outcome in Appendix B
- Objectives evaluate Operation Excellence and Project Execution
 - Performance Measures evaluate Major Project Starts, Major Project Milestones and Cost Effectiveness
- Incorporates Self Assessment
 - Supporting Assessment Measures
 - Project and Program Management Systems
 - Stakeholder Involvement
 - Waste Management
 - Work Management
 - Includes Independent DOE Assessments
- BSA contract ends January 2003; Extend/compete at HQ



Top to Bottom

- HQ Team visited BNL in February 2002
- Follow-up Video conference on HFBR held in March
 - BNL program meshes well with Top to Bottom Report recommendations
 - Accelerated Baseline already developed
- Letter of Intent signed by U.S. EPA; under review by New York State
- Performance Plan under development



BNL FY 2002 Planned Accomplishments

- Operable Unit I – Rad Soils
 - Complete Bld 650 Sump and Outfall Remediation
 - Complete Chemical Holes Soil sorting to remove non conforming items
- Groundwater
 - Complete Construction of Chemical Holes Sr-90 Treatment System
 - Complete design of off-site systems (LIPA, North St. East, OU VI, etc.) and obtain access



BNL Challenges

- ATG Bankruptcy
- Peconic River
 - To dig or not to dig
- Off-site access for construction of groundwater treatment systems
- FY 2003 Budget
- HFBR D&D?
- Transfer of Excess Facilities
 - Bld. 650 & BMRR